

METHOD AND APPARATUS FOR INSPECTING A STRUCTURE  
UTILIZING MAGNETICALLY ATTRACTED PROBES

ABSTRACT OF THE DISCLOSURE

5        An apparatus and method for inspecting a structure are provided in which probes including respective sensing elements, such as ultrasonic transducers, are disposed proximate the opposed surfaces of a structure, but only one of the probes need be driven. In this regard, a tracking probe may be magnetically coupled to a driven probe and move in coordination therewith. The apparatus and method can  
10      therefore inspect structures in which one surface is inaccessible. The probes may permit liquid to be bubbled between the ultrasonic transducer and the structure in order to couple the ultrasonic signals. By utilizing a bubbled liquid as a couplant, the apparatus and method may operate in an ultrasonic array mode. Additionally, the probes may include at least one contact member, such as a plurality of wheels, for  
15      contacting the structure in order to maintain the desired orientation and spacing of the probes relative to the structure.

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